

REMARKS/ARGUMENTS

Claims 1-44 are pending in this application. Claims 1-14, 16-18, 20-27, 31, 32, 35-38, and 42-44 stand rejected. Claims 28-30, 33, and 34 stand allowed. Claims 15, 19, and 39-41 stand objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claim.

Claims 1, 12, 14, 16, 17, 18, 38, 42, 43, and 44 have been amended. Claims 15, 19, 22-27, 35-37, and 39 have been canceled. No new claims have been added by this paper.

Claim Rejections - 35 USC § 102

Claims 1-4, 14, 16, 17, 18, 20, and 21 stand rejected under 35 U.S.C. §102(b) as being anticipated by Lui et al. (U.S. Pat. No. 6,182,180). Claim 1 has been amended to require that the first first-in first-out (FIFO) buffer not be coupled between the send machine and the bus controller. Liu does not disclose this limitation. For example, even assuming for purposes of argument that the request queue 203 shown in FIG. 2 of Liu is a first FIFO buffer, that the message data register (MDR) 207 shown in FIG. 2 of Liu is a send machine, and that the system interface processor 201 is a bus controller within the meaning of claim 1, the request queue 203 of Liu is coupled between the MDR 207 and the system interface

processor 201. Liu does not, therefore, disclose a first FIFO buffer that is not coupled between a send machine and a bus controller.

As an example for purposes of comparison, consider the embodiment illustrated in FIG. 2A of the present application. The FIFO buffer 214 is illustrated therein as being coupled to the send machine 210 and coupled between the host processor 238 and the send machine 210, but not between the send machine 210 and the bus controller 208.

Claim 14 stands rejected under Liu. Claim 15, however, stands objected to as being dependent upon a rejected base claim (i.e., claim 14), but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 15 has effectively been rewritten in independent form, by incorporating all the limitations of claim 15 into claim 14, and canceling claim 15. Claim 14, as amended, is therefore allowable. Claims 16 and 17 depend from claim 14 and therefore are allowable for at least the same reasons.

Similarly, claim 18 stands rejected under Liu. Claim 19, however, stands objected to as being dependent upon a rejected base claim (i.e., claim 18), but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 19 has effectively been rewritten

in independent form, by incorporating all the limitations of claim 19 into claim 18, and canceling claim 19. Claim 18, as amended, is therefore allowable. Claims 20 and 21 depend from claim 18 and therefore are allowable for at least the same reasons.

Claim 12 stands rejected under Johnson et al. (U.S. Pat. No. 6,122,758). Claim 12 has been amended to require that the first first-in first-out (FIFO) buffer not be coupled between the send machine and the bus controller, and that the second FIFO buffer not be coupled between the receive machine and the bus controller. Johnson does not disclose these limitations. Claim 12, therefore, patentably distinguishes over Johnson. Claim 13 depends from claim 12 and therefore patentably distinguishes over Johnson for at least the same reason.

The rejection of claims 22-23 and 25-26 over Johnson is moot in light of the cancellation of claims 22-23 and 25-26.

Claim 43 stands rejected under Johnson et al. (U.S. Pat. No. 6,122,758). Claim 43 has been amended to require that the first first-in first-out (FIFO) buffer not be coupled between the send machine and the bus controller, and that the second FIFO buffer not be coupled between the receive machine and the bus controller. Johnson does not disclose these limitations. Claim 43, therefore, patentably distinguishes over Johnson.

Claim Rejections - 35 U.S.C. § 103

Claim 5 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Liu et al. in view of Yoshida (U.S. Pat. No. 5,928,372). Claim 5 depends (indirectly) from claim 1. This rejection is therefore moot in light of the above-referenced amendment to claim 1, since neither Liu nor Yoshida, either individually or in combination, teaches or suggests all of the limitations of claim 1, as amended.

Similarly, the rejection of claims 6-8 under 35 U.S.C. § 103(a) as being unpatentable over Liu et al. in view of Feeney (U.S. Pat. No. 6,072,781) is moot in light of the above-referenced amendment to claim 1. Claims 6-8 depend, either directly or indirectly, from claim 1, and neither Liu nor Feeney, either individually or in combination, teaches or suggests all of the limitations of claim 1, as amended.

Similarly, the rejection of claim 9 under 35 U.S.C. § 103(a) as being unpatentable over Liu et al. in view of Cao (U.S. Pat. No. 5,230,044) is moot in light of the above-referenced amendment to claim 1. Claim 9 depends from claim 1, and neither Liu nor Cao, either individually or in combination, teaches or suggests all of the limitations of claim 1, as amended.

Similarly, the rejection of claims 10-11 under 35 U.S.C. § 103(a) as being unpatentable over Liu et al. in view of Webb (U.S.

Pat. No. 4,577, 060) is moot in light of the above-referenced amendment to claim 1. Claims 10-11 depend from claim 1, and neither Liu nor Webb, either individually or in combination, teaches or suggests all of the limitations of claim 1, as amended.

Similarly, the rejection of claim 13 under 35 U.S.C. § 103(a) as being unpatentable over Johnson in view of Feeney in view of Cao and further in view of Webb is moot in light of the above-referenced amendment to claim 12. Claim 13 depends from claim 12, and none of the cited references, either individually or in combination, teaches or suggests all of the limitations of claim 12, as amended.

The rejection of claims 24 and 27 is moot in light of the cancellation of claims 24 and 27.

Claims 31 and 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Liu et al. in view of Yoshida. Applicant traverses this rejection on the ground that the Office Action fails to make out a prima facie case of obviousness. The Office Action states that although Liu fails to teach or suggest the claim limitation of "wherein the receive machine comprises checksum generation means for generating a message checksum for a message while the message is being received by the bus controller over the communications bus," Yoshida teaches a checksum generation means for generating a message checksum for a message while the message is being received by the bus controller over the communications bus.

Even if it is assumed for purposes of argument that Yoshida provides such a teaching, the Office Action points to no motivation to combine the teachings of Liu and Yoshida to produce the relevant claim limitation. Although the Office Action states that it would have been obvious "to combine the checksum generation means of Yoshida with the system of Liu" because "error-free data is critical to the correction operation of a digital system," this ignores an express limitation of claim 31, namely that the checksum generation messages generates a message checksum for a message *while the message is being received by the bus controller over the communications bus*. Even if it is assumed that error-free data would be desirable in the system of Liu, the Office Action points to no motivation in the references to provide such error-free data in Liu by generating a message checksum *while a message is being received by the bus controller*, rather than, for example, generating the message checksum *after* the message has been received by the bus controller. Applicant therefore traverses this rejection and requests that it be withdrawn.

The rejection of claims 35-37 is moot in light of the cancellation of claims 35-37.

Claim 38 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Liu in view of Cao. Claim 39, however, stands objected to as being dependent upon a rejected base claim (i.e.,

claim 38), but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 39 has effectively been rewritten in independent form, by incorporating all the limitations of claim 39 into claim 38, and canceling claim 39. Claim 38, as amended, is therefore allowable.

Claim 42 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Johnson in view of Feeney, in view of Cao, and further in view of Webb. Claim 42 has been amended in the same manner as claim 1. None of the cited references teaches or suggests the limitations of claim 1, as amended. Claim 42, as amended, therefore patentably distinguishes over the cited combination.

Claim 44 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Johnson in view of Cao. Claim 44 has been amended in the same manner as claim 1. None of the cited references teaches or suggests the limitations of claim 1, as amended. Claim 44, as amended, therefore patentably distinguishes over the cited combination.

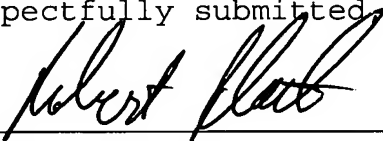
CONCLUSIONS

Any dependent claims not specifically referenced above incorporate the limitations of the independent claims from which they depend, and therefore are patentable for at least the same reasons.

If the Examiner considers the arguments presented herein not to be persuasive, the Applicant respectfully requests that the Examiner contact the Applicant to schedule an interview at a mutually convenient time.

If this response is not considered timely filed and if a request for extension of time is otherwise absent, applicant hereby requests any extension of time. Please charge any fees or make any credits, to Deposit Account No. 08-2025.

Respectfully submitted,



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